CURRICULUM VITAE

Temitope Elizabeth Olalekan

29 March, 1975

Chemistry

I.

(a)

(b)

(c)

Name:

Date of Birth:

Department:

(d) Faculty: Science II. First Academic Appointment: Assistant Lecturer (19 February, 2013) (a) Senior Lecturer (1 October, 2019) (b) Present post (with date): Date of last Promotion: 1 October, 2019 (c) Date last considered: Not Applicable (d) III. University Education (with dates) University of Ibadan, Ibadan, Nigeria 1992-1998 University of Ibadan, Ibadan, Nigeria 2003-2004 University of Ibadan, Ibadan, Nigeria 2005-2007 Rhodes University, Grahamstown, South Africa 2009-2012 IV. Academic Qualifications (with dates and granting bodies) B.Sc. Chemistry (Second Class Upper Division) 1998, University of Ibadan M.Sc. Chemistry (Inorganic Chemistry) (PhD Grade) 2004, University of Ibadan Doctor of Philosophy in Chemistry 2013, Rhodes University, South Africa V. Professional Qualifications and Diplomas (with dates) Postgraduate Diploma in Education 2008, University of Ibadan VI. Scholarships, Fellowships and Prizes (with dates) **Undergraduate** Nil Postgraduate Postgraduate Fellowship by Organization for Women in Science for the Developing World (OWSDW) Italy: For a PhD program at Rhodes University, Grahamstown, South Africa Duration: 3 years (August 2009–August 2012). NiReMas Post-Doc Research Fellowhip: Short Post-Doctoral Research stay at the Department of Chemistry, University of Cologne, Germany Duration: 6 Weeks (January–February 2023).

VII. Honours, Distinctions and Membership of Learned Societies

Member, American Chemical Society (ACS)

Member, Chemical Society of Nigeria (CSN)

VIII. Details of Teaching/Work Experience

- (a) Number of Years of Teaching at University Level: 11
- (i) Assistant Lecturer, Department of Chemistry, University of Ibadan: February–April 2013
- (ii) Lecturer II, Department of Chemistry, University of Ibadan: April 2013 to September 2016
- (iii) Lecturer I, Department of Chemistry, University of Ibadan: October 2016 to September 2019
- (iv) Senior Lecturer, Department of Chemistry, University of Ibadan: October 2019 to date
- (b) <u>Lectures, Practicals and Supervision of Projects:</u>
- (i) Courses currently being taught at the University of Ibadan (2023/2024)

Undergraduate Courses

CHE 126 – Inorganic Chemistry I (being taught with 2 others)

CHE 326 – Inorganic Chemistry III (being taught with 1 other)

CHE 426 – Inorganic Chemistry IV (being taught with 2 others)

CHE 428 – Special Topics in Inorganic Chemistry (being taught with 4 others)

CHE 481 – Seminar Topics

CHE 495 – Research Project

Postgraduate Courses

CHE 732 – Recent Advances in Coordination Chemistry (being taught with 2 others)

CHE 736 – Molecular Polyhedra (being taught with 2 others)

CHE 738 – Advances in Inorganic Chemistry (being taught with 2 others)

CHE 796 – Research Project

(ii) Courses previously taught at the University of Ibadan (2013–2023)

CHE 226 – Inorganic Chemistry II (taught with 1 other)

CHE 281 – Research Methods and Presentation Techniques (taught with 3 others)

CHE 329 - Inorganic Chemistry for Life Sciences (taught with 2 others)

CHE 429 - Organometallics and Inorganic Reaction Mechanisms (taught with 1 other)

(iii) Number of Students Supervised (2013 to date)

Undergraduate: 2

Postgraduate (M.Sc.): 23

(c) <u>Administrative Duties</u>

- (i) Member, UIRESDEV Committee 2019 to date
- (ii) Member, Faculty Awards and ceremonies Committee
- (iii) Member, Departmental Postgraduate (M.Sc.) Committee
- (iv) Member, Departmental NUC Accreditation Committee
- (v) Member, Departmental Finance Committee
- (vi) Departmental Seminar Coordinator
- (vii) Member, PG College Supervisors Trainers 2023 to date
- (viii) Secretary, Chemical Society of Nigeria, Oyo Chapter

IX. Research

- (a) Completed
- 1. Synthesis, characterization and antimicrobial activity of 2-((4-methoxyphenylimino)methyl)phenol Schiff base, metal(II) complexes and mixed ligand complexes with 2, 2'-bipyridine
- 2. Synthesis and characterization of mixed ligand copper(II) complexes of ethanolamine and urea with aromatic heterocyclic *NN'* bases

(b) In Progress

1. Synthesis, characterization and biological activity of coordination compound of 2-aminothiazole Schiff base.

This research work started in February 2016, aimed at investigating the synthesis of the Schiff base derived from 2-aminothiazole and *p*-methoxsalicylaldehyde, and their metal complexes with metal ions such as Co, Ni, Cu, Zn, Ag and Pd. The antimicrobial and antineoplasic activity of the compounds have been evaluated. The manuscript is being written for submission for journal review and publication.

2. Synthesis, characterization, antimicrobial and cytotoxicity of Schiff bases of 2-mercapto-5-aminobenzimidazole and metal complexes.

This research started in June 2018. It aims to synthesize the Schiff base of 2-mercapto-5-aminobenzimidazole and salicylaldehyde, and its metal complexes. The compounds will be evaluated for antimicrobial, and anticancer activity. The synthesis and antimicrobial studies of the compounds are completed. The anticancer assay is ongoing.

3. Synthesis, characterization and biological activity of Schiff bases of 2-aminobenzimidazole and 2-aminobenzothiazole and metal complexes.

This research started in May 2022. It aims to synthesize the Schiff bases of 2-aminobenzimidazole and 2-aminobenzothiazole with aldehydes such as o-vanillin and 3-ethoxysalicylaldehyde, with a view to prepare their metal complexes. The compounds will be evaluated for antimicrobial, and anticancer activity. The synthesis and preliminary antimicrobial studies are completed, some analyses are not yet completed, however.

(c) Project, Dissertations and Thesis

- (i) Synthesis and characterization of the 3-chloro-substituted-β-ketoamines with their cobalt(II), nickel(II) and copper(II) chelates (B.Sc. Project).
- (ii) Metal(II) complexes of unsymmetrical Schiff bases and their adducts with 2,2'-bipyridine and 1,10-phenanthroline (Metal = Ni, Cu and Zn) (M.Sc. Dissertation).
- (iii) Synthesis, characterisation and biological activity of 2-(methylthiomethyl)anilines, 2-(methylthio)anilines, their Schiff-base derivatives and metal(II) (Co, Ni, Cu) complexes (PhD Thesis).

X. Publications

- (a) Books already published: Nil
- (b) Chapters in Books already published: Nil
- (c) Articles that already appeared in Refereed Conference Proceedings: Nil
- (d) Patents and Copyrights: Nil
- (e) Articles that have already appeared in learned journals:
- 1. **Olalekan, T.E.**, Beukes, D.R., Van Brecht, B. and Watkins, G.M. (2014). Copper(II) Complexes of 2-(Methylthiomethyl)anilines: Spectral and Structural Properties and In Vitro Antimicrobial Activity. *Journal of Inorganic Chemistry* Vol. 2014: 10 pages. Article ID 769573. http://dx.doi.org/10.1155/2014/769573.
- 2. **Olalekan, T.E.,** Adejoro, I.A., Van Brecht, B. and Watkins, G.M. (2014). Crystal structures, spectroscopic and theoretical study of novel Schiff bases of 2-(methylthiomethyl)anilines. *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy* Vol. 139: 385–395.
- 3. **Olalekan, T.E.** and Shoetan, I.O. (2015). Synthesis, Characterization and Antimicrobial Activity of Carboxylate-Bridged Homodinuclear Schiff Base Metal(II) Complexes. *Pacific Journal of Science and Technology* Vol. 16. No. 1: 224-232.
- 4. **Olalekan, T.E.** and Bakare, T.E. (2015). Synthesis of 2-Aminobenzoic Acid Metal(II) Complexes by Schiff Base Hydrolysis and the Antimicrobial Potency Studies. *Pacific Journal of Science and Technology* Vol. 16. No. 1: 233-239.
- 5. **Olalekan, T.E.**, Ogunlaja, A.S., Van Brecht, B. and Watkins, G.M. (2016). Spectroscopic, structural and theoretical studies of copper(II) complexes of tridentate NOS Schiff bases. *Journal of Molecular Structure* Vol. 1122: 72–79.
- 6. Oladipupo, O. E., Ibukun, D. T. and **Olalekan, T. E**. (2018). Synthesis and characterisation of mixed ligand dinuclear metal(II) complexes of anthranilic acid and pyridine-2-aldoxime. *Nigerian Journal of Chemical Research* Vol. 23, No. 2: 39–50.

- Ntukidem, E. N., **Olalekan, T. E.** and Ayeni, F. A. (2018) Synthesis, characterization and antimicrobial studies of *o*-phenylenediamine Schiff base, Ni(II), Cu(II), Zn(II) complexes and Cu(II) adduct. *Journal of Science Research* Vol. 17: 38-44.
- 8 **Olalekan, T. E.** (2018). Cobalt(II) and nickel(II) complexes of thiomethylated anilines: Characterization and *in-vitro* antimicrobial studies. *Journal of Science Research* Vol. 17: 62-67.
- Olalekan, T. E., Adeniyi O. and Gareth M. Watkins. (2019). *SN*-Donor Methylthioanilines and copper(II) complexes: Synthesis, Spectral properties and *invitro* antimicrobial activity. *Heteroatom Chemistry* Vol. 2019: 7 pages. Article ID 9203435.
- Lucky Ejikeme Didia and **Temitope Elizabeth Olalekan** (2019). Synthesis, characterization and antimicrobial activity of Schiff base derived from *o*-phenylenediamine and its Metal (II) complexes. *Science Focus* Vol. 23(1): 1-10.
- Yemisi Abiodun Ayoola and **Temitope Elizabeth Olalekan** (2019). Synthesis and characterization of mixed ligand copper(II) complexes of ethanolamine and urea with aromatic heterocyclic *NN'* bases, *Science Focus* Vol. 23(1): 11-18.
- Veronica Olatinuke Olatujoye and **Temitope Elizabeth Olalekan**.

 Synthesis, characterization and antimicrobial activity of 2-((4-methoxyphenylimino)methyl)phenol Schiff base, metal(II) complexes and mixed ligand complexes with 2, 2'-bipyridine. *Journal of Science Research (in press)*.
- Temitope E. Olalekan, Eric O. Akintemi, Adeniyi S. Ogunlaja, Bernardus Van Brecht, Gareth M. Watkins (2023). Spectroscopic, characterization and DFT studies of 2-((methylthio)phenyl)iminosalicylaldimine Schiff base derivatives and copper(II) complexes. Crystal structure of (*E*)-5-methoxy-2-(((2-(methylthio)phenyl)imino)methyl)phenol. Bulletin of the Chemical Society of Ethiopia 2023, 37(3), 675-688.

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(g) Technical Reports and Monographs Nil

Workshops
(a) Training Workshop on Computational studies, Theoretical studies and Molecular
Dynamics simulation and Computer Cluster (HPC cluster training)
The Postgraduate College, University of Ibadan April 29-May 10, 2019
(b) University of Ibadan Collaborative Academic Resuscitation and Transformation (UI-
CART) Project in Science and Technology (ScTech) - Capacity Building Workshop for
Early Career and Postgraduate Researchers in ScTech May 14-16, 2019
(c) UI-CARTA Capacity Building Workshop on Innovative Research and High Impact
Scholarly Publications for Early Career Academics in Science and Technology,
University of Ibadan May 14–16, 2019
(d) TETFund Research for Impact (R4i) Workshop for 18 selected beneficiary universities.
Innov8 Hub along Airport Road, Eco Estate Abuja
(e) University of Ibadan Postgraduate College Training of Trainers (ToT) Workshop for Supervisors of Doctoral Students, UI Conference Centre November 20–22, 2023
Dr. Temitope Elizabeth Olalekan Date

Major Conferences/Workshops Attended with Papers Read (in the last 5 years)

XI.